

IN THE CLAIMS:

Cancel claims 1-38 (all pending claims) and replace them without prejudice with the following new claim 39:

39. (New) De-feathering apparatus comprising:

a plurality of elongating picking elements comprising structures selected from the group consisting of: filaments, fibers, bristles, wires, and substantially rigid threads, said elements consist essentially of a material which has a mass per unit length which is substantially less than rubber;

said picking elements having first and second ends, said first ends being affixed to at least a first rotatable unit connected to a motor driven system for causing rotation of said rotatable unit and which is functionally installed on a motorized picking apparatus comprising:

a first bank of rotatable units having a plurality of said picking elements affixed thereon; and

a second bank of rotatable units having a plurality of said picking elements affixed thereon, said second bank of rotatable units located so as to be spaced apart from and substantially opposite said first bank of rotatable units such that said first and said second banks of rotatable units define a space therebetween for passage of a line of poultry therethrough.

40. (New) De-feathering apparatus according to claim 39 wherein said picking elements have a length to diameter ratio of at least approximately 10:1.

41. (New) De-feathering apparatus according to claim 40 wherein said picking elements have diameters selected from between 10 and 240 mils.

42. (New) De-feathering apparatus according to claim 41 wherein said picking elements are comprised of a crystalline resin polymer base material.

43. (New) De-feathering apparatus according to claim 42 wherein said picking elements are comprised of a nylon base material.

44. (New) De-feathering apparatus according to claim 39 wherein said first bank and said second bank of rotatable units rotate in opposite directions one from the other.

45. (New) De-feathering apparatus according to claim 44 wherein adjacently located rotatable units are constructed so as to rotate in opposite directions one from the other.

46. (New) De-feathering apparatus according to claim 44 wherein said first and said second banks of rotatable units each include at least two rows and at least four columns of rotatable units.

47. (New) De-feathering apparatus according to claim 44 wherein each rotatable unit in said first and second banks of rotatable units is connected to a motor driven system for causing

rotation of said rotatable unit at a rate selected from between 200 and 2000 revolutions per minute.

48. (New) De-feathering apparatus according to claim 47 wherein each said rotatable unit of said first and said second banks of rotatable units is adjustable in orientation thereby to provide tailorability of said motorized picking apparatus for de-feathering multiple sizes of poultry.

49. (New) De-feathering apparatus according to claim 48 wherein said space between said first and said second banks of rotatable units is adjustable in size.

50. (New) De-feathering apparatus according to claim 49 further including a fluid line having at least one fluid jet for providing a water spray source to said first and said second banks of rotatable units.

51. (New) De-feathering apparatus according to claim 39 wherein said picking elements are affixed to said rotatable units in closely packed clusters.

52. (New) De-feathering apparatus according to claim 51 wherein each said rotatable unit comprises a rotatable disk and includes a plurality of picking element clusters spaced apart one from another, each said picking element clusters comprising approximately 50-150 picking elements.

53. (New) De-feathering apparatus according to claim 52 wherein said plurality of picking element clusters extend substantially perpendicularly from a face of said rotatable disk.

54. (New) De-feathering apparatus according to claim 52 wherein said plurality of picking element clusters extend at angles selected from between 45-90 degrees from a face of said rotatable disk.

55. (New) De-feathering apparatus according to claim 39 wherein said picking elements are crimped along a substantial portion of their length.

56. (New) De-feathering apparatus according to claim 39 wherein said picking elements are serrated along a substantial portion of their length.

57. (New) De-feathering apparatus according to claim 39 wherein said picking elements are crimped along a substantial portion of their length and are comprised of a crystalline resin polymer base material.

58. (New) De-feathering apparatus according to claim 39 wherein said picking elements are corkscrewed along a substantial portion of their length.

59. (New) De-feathering apparatus according to claim 39 wherein said picking elements are tapered along a substantial portion of their length.

60. (New) De-feathering apparatus according to claim 39 wherein said picking elements have substantially rounded tips.

61. (New) A method of de-feathering poultry by using the apparatus according to claim 39, said method comprising:  
rotating said plurality of elongated picking elements about

an axis; and

causing a poultry carcass to contact said rotating plurality of elongated picking elements;

said elongated picking elements comprising structures selected from the group consisting of: filaments, fibers, bristles, wires, and substantially rigid threads.

62. (New) A method of de-feathering poultry according to claim 61 wherein said picking elements having a length to diameter ratio of at least approximately 10:1.

63. (New) A method of de-feathering poultry according to claim 62 wherein said picking elements have diameters selected from between 10 and 240 mils.

64. (New) A method of de-feathering poultry according to claim 63 wherein said picking elements are comprised of a crystalline resin polymer base material.

65. (New) A method of de-feathering poultry according to claim 64 wherein said picking elements are comprised of a nylon base material.

66. (New) A method of de-feathering poultry according to claim 61 further including passing a poultry carcass between opposing banks of rotating units having picking elements extending therefrom.

67. (New) A method of de-feathering poultry according to claim 66 further including causing oppositely facing rotating units to counter rotate one with respect to the other.